

## **REMARKS**

### **I. Summary of the Office Action**

The Office Action mailed January 23, 2009 ("the Office Action") made the following objections and/or rejections, each of which is addressed in more detail below:

Claims 17-25 and 32 were rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter.

Claims 17 and 32 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Claim 25 was rejected under 35 U.S.C. 112, fourth paragraph.

Claims 17-25 and 32 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 7,177,833 ("Marynowski") in view of U.S. Patent Application Publication No. 20043/0267655 ("Davidowitz") in view of U.S. Patent Application Publication No. 2003/0069830 ("Morano").

### **II. Related Applications**

The Applicants understand that the Examiner reviews the claims and prosecution history of related applications as they contain common subject matter. To this end, the Applicants remind the Examiner that the present application is related through a common claim of priority to U.S. Patent Application Serial Nos. 10/137,979, 11/417,870, 11/417,915, 11/417,533, and 12/164,859. In addition, the Applicants remind the Examiner that, as discussed in the Interview, U.S. Patent Application Serial No. 11/417,870 is a continuation of the present application before a different Examiner (Harish T. Dass) and in a different art unit (3692) and has been allowed.

In addition, for the purposes of the present application, the Applicants hereby rescind any disclaimer of claim scope that may have been (or may be) made during the prosecution of any related application. The Applicants respectfully request examination of the instant claims according to the claim language in light of the prior art without importing statements made by the Applicants in the prosecution of any related application.

### III. Status of the Claims

The present application includes claims 33-46. By this Response, claims 17-25 and 32 have been cancelled and new claims 33-46 have been added. Claims 17-25 and 32 were cancelled without prejudice and disclaimer in order to expedite prosecution and the Applicants expressly reserve the right to pursue the subject matter of the cancelled claims in a continuing application. Support for these amendments can be found throughout the application and therefore no new matter is added in this response.

The Applicants respectfully submit that because the rejected claims have been cancelled, the pending rejections are now moot and should be withdrawn. However, in the interest of expediting prosecution, the Applicants have addressed the new claims with respect to the pending rejections because they recite one or more similar features as the cancelled claims.

### IV. Claim Rejections 35 U.S.C. 101 & 35 U.S.C. 112

The Applicants respectfully submit that these rejections are moot with respect to the cancelled claims and not applicable to the newly added claims.

### V. Claim Rejections – 35 U.S.C. 103

The Applicants now turn to the rejection of claims 17-25 and 32 under 35 U.S.C. 103(a) as being unpatentable over Marynowski in view of Davidowitz in view of Morano. As mentioned above, claims 17-25 and 32 have been cancelled. Consequently, the Applicants respectfully submit this rejection is moot and should be withdrawn. However, in the interest of expediting prosecution the Applicant will address the newly added claims with respect to the cited art.

The pending claims of the present application are generally directed to determining a last traded price (LTP) for a spread. As previously discussed, for a synthetic spread, the LTP represents a price at which a trader might have been able to buy or sell the spread, recalling that because the spread may not actually have been traded, the LTP for a synthetic spread is estimated.

Marynowski has been previously discussed and for brevity that discussion will not be repeated here. Marynowski mentions a last traded price at three locations: (1) col. 7, lines 43-47; (2) col. 9, lines 22-30; and (3) col. 28, lines 39-45. The first location states that a last price may be among current market information that is received by a trader site. The second location notes that the current market price of an underlying security may be defined in several different ways including the last price at which it was traded. The third location states that, when defining a price to buy an underlying security using automatic hedging, the last traded price may be used. The Applicant respectfully submits that in all three cases, the last traded price is a value received from the exchange.

The Office Action stated at page 4 that Marynowski disclosed characterizing a first tradeable object as being bought or sold based on detecting an event. Confusingly, the Office Action then noted that “although Marynowski does not explicitly state a tradeable object has been bought or sold, it is inherent that in order for the Marynowski invention to work, this step would have been done.” The Office Action then turned to Davidowitz as also teaching the claimed characterization. Davidowitz will be discussed below in more detail. However, with respect to Marynowski, the Applicants respectfully submit that Marynowski makes no mention of determining a characterization for a first tradeable object based on a detected change in market data for the first tradeable object, where the characterization includes one of the first tradeable object having been bought or sold. Rather, Marynowski, as has been previously discussed, is concerned with submitting orders based on market data. Marynowski calculates a theoretical value for the traded item when an underlying factor affecting the theoretical value changes. This theoretical value is then used to determine whether an order should be submitted. Marynowski does not determine a characterization for the change in the received market data, but instead simply inserts the changed values into an equation and calculates a new theoretical value. Whether a tradeable object was bought or sold does not matter, so no characterization needs to be (and is not) determined in Marynowski.

The Office Action cites col. 17, line 48 – col. 18, line 3 with respect to several of the cancelled dependent claims that addressed particular characterizations. The Applicants respectfully submit that this portion of Marynowski simply identifies, based on what market information changed, which comparisons may be made in order to determine whether a new

trade for a particular option should be made. Marynowski makes no mention of determining a characterization for a tradeable object as claimed based on the change.

The Office Action stated at page 5 that Marynowski also does not teach estimating a spread value for a spread based on a first value associated with the event in the first tradeable object and based on a second value associated with a selected buy side or sell side of a second tradeable object. The Applicants agree and further respectfully submits that Marynowski makes no mention of estimating a last traded price for a spread based on a definition for the spread, the characterization for the first tradeable object, and at least one of the highest bid price and lowest ask price for a second tradeable object. Rather, as discussed above, Marynowski only briefly mentions a last traded price and does so only in the context of information received from an exchange (that is, not estimated) that may in turn be used as a price for the underlying security (that is, not a spread).

Davidowitz generally relates to initiating pair trading across multiple markets, including foreign markets, and automatic foreign exchange price hedge, as stated in paragraph [0003]. As discussed in paragraph [0036], the spread engine of Davidowitz, in connection with determining whether to initiate spread orders, derives market parameters from market data. Market parameters include market data and data based on market data that is displayed to the trader, used to determine whether to initiate spread orders. For example, market parameters include current buy/sell prices for securities, current spreads for two or more securities, currency exchange rates, and any other information to be used in determining whether or how to initiate an order or display to the trader.

As discussed in paragraph [0038], to determine whether to initiate orders for securities on one side of the spread, the spread engine of Davidowitz compares spread parameters selected by the trader with market parameters for the securities in each spread or the market data itself. Upon receiving confirmation from the order execution server that the orders have been filled, the spread engine generates orders for the securities on the other side of the spread. Thus, the spread engine of Davidowitz considers market parameters and market data to determine whether to initiate orders for one side of a spread.

However, Davidowitz makes no mention of determining a characterization for a first tradeable object based on a detected change in market data for the first tradeable object, where the characterization includes one of the first tradeable object having been bought or sold. Rather,

as discussed above, merely utilizes the market data to decide whether to place orders for securities in a spread. Davidowitz makes no mention of characterizing, based on a change in market data, a particular security as having been bought or sold.

In addition, Davidowitz makes no mention of estimating a last traded price for a spread. While Davidowitz may calculate an LTP for a spread as part of determining a market parameter to display to a trader, there is simply no discussion in Davidowitz as to how such an LTP would be determined.

Consequently, the Applicants respectfully submit that Davidowitz cannot and does not cure the deficiencies of Marynowski discussed above.

Morano generally relates to an implied market trading system. As explained beginning at paragraph [0009], bids and offers for a particular contract in an electronic trading system are called outright orders. Outright orders are contrasted with spread orders. A spread order according to Morano, as explained in paragraph [0010], is the simultaneous purchase and sale of futures contracts for different months, different commodities, or different grades of the same commodity. Each bid and offer component of a spread is termed a bid leg and an offer leg, respectively.

A real order is an order that is entered into the system by a trader, as stated in paragraph [0011]. Implied orders, as discussed in paragraph [0012], are generated by the system on the behalf of traders who have entered outright orders. Implied orders have been generated to provide order combinations which could not be directly entered into a trading system. In order to do this, the system examines the outright orders entered into the system and derives orders, which are implicit in the combination of specific outright orders. An implied spread may be derived for one or more real outrights or real spreads which have a common and offsetting leg. The system then creates the “derived,” or “implied,” order and displays the market that results from the creation of the implied order as a market that may be traded against. If a trader trades against this implied market, then the real orders that combined to create the implied order and the resulting market are executed as matched trades.

The creation of implied markets, as noted in paragraph [0013], involves the existence somewhere of a real market – that is, a market for which a trader has entered an order into the system. These orders may be for an individual or outright future market or for a spread market and will create real outright future and real spread markets respectively. Depending on what real

markets exist there is the potential for both implied outright futures and implied spreads markets to be generated. Paragraphs [0020]-[0026] discuss how implied spreads may be created using prior techniques. As discussed in paragraph [0027], Morano utilizes non-tradeable implied bridge markets to create more implied calendar and inter-commodity spread markets because, according to Morano, it is advantageous for the trading system to have the ability to generate as many implied markets as possible. The generation of implied spreads from more than two real spreads by creating implied spreads that are non-tradeable, bridge markets is discussed in more detail beginning at paragraph [0051].

However, Morano makes no mention of estimating a last traded price for a spread. Rather, as discussed above, Morano is concerned with generating implied spreads and simply makes no mention of estimating a last traded price for a spread. In addition, the Applicant respectfully submits that Morano also makes no mention of determining a characterization for a first tradeable object based on a detected change in market data for the first tradeable object, where the characterization includes one of the first tradeable object having been bought or sold.

Consequently, the Applicants respectfully submit that Morano cannot and does not cure the deficiencies of Marynowski and Davidowitz discussed above.

Independent claim 33 recites “determining by the computing device a characterization for the first tradeable object based on the detected change, wherein the characterization includes one of the first tradeable object has been bought and the first tradeable object has been sold” and “estimating by the computing device a last traded price for the spread based on the definition for the spread, the characterization for the first tradeable object, and at least one of the highest bid price and the lowest ask price for the second tradeable object.” Independent claim 46 recites similar features. As discussed above, Marynowski, Davidowitz, and Morano do not individually teach or suggest such features. Thus, the proposed combination of Marynowski, Davidowitz, and Morano cannot and does not teach or suggest the entirety of the features recited in the pending claims. Therefore, the Applicants respectfully submit that independent claims 33 and 46 should be allowable over the cited art of record for at least the reasons discussed above.

With respect to claims 34-45, these claims depend from independent claim 33. The Applicant respectfully submits that claims 34-45 should be allowed for at least the reason that they each depend from an allowable claim.

VI. Conclusion

In general, the Office Action makes various statements regarding the pending claims and the cited art that are now moot in light of the above. Thus, the Applicants will not address such statements at the present time. However, the Applicants expressly reserve the right to challenge such statements in the future should the need arise (for example, if such statements should become relevant by appearing in a rejection of any current or future claim).

All the stated grounds of objection and rejection have been respectfully traversed, accommodated, or rendered moot. The Applicants therefore submit that the present application is in condition for allowance. If the Examiner believes that further dialog would expedite consideration of the application, the Examiner is invited to contact Trading Technologies in-house Patent Counsel Adam Faier at 312-698-6003, or the undersigned attorney or agent.

Respectfully submitted,  
McDonnell Boehnen Hulbert & Berghoff LLP

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By: Jori R. Fuller  
Jori R. Fuller  
Reg. No. 57,628

McDonnell Boehnen  
Hulbert & Berghoff LLP  
300 South Wacker Drive  
Chicago, IL 60606  
Tel: 312-913-0001  
Fax: 312-913-0002